Claims

[c1] 1. An automotive suspension assembly comprising:
a knuckle having a camber;
a lower control arm rotatably affixed to said knuckle by way of a lower mount joint rotatably engaging a lower rotational joint; and
an upper control arm rotatably affixed to said knuckle by way of an upper mount joint rotatably engaging an upper rotational joint, said upper rotational joint including an integral upper control arm shaft positioned within a slotted guide, said camber adjustable by adjusting the position of said upper control arm shaft within said slotted guide.

[c2] 2. An automotive suspension assembly as described in claim 1, wherein said upper control arm shaft is positioned along the rotational axis of said upper rotational joint.

[c3] 3. An automotive suspension assembly as described in claim 1, wherein said upper mount joint is formed as a portion of said upper control arm and said upper rotational joint is formed as a portion of said knuckle.

[c4] 4. An automotive suspension assembly as described in claim 1, wherein said upper mount joint is formed as a portion of said knuckle and said upper rotational joint is formed as a portion of said upper control arm.

[c5] 5. An automotive suspension assembly as described in claim 1, wherein said upper rotational joint comprises a cross-axis ball joint.

[c6] 6. An automotive suspension assembly as described in claim 1, wherein said upper rotational joint comprises a bushing joint.

[c7] 7. An automotive suspension assembly as described in claim 1, further comprising:
at least one service shim port formed in said upper control arm.

[c8] 8. An automotive suspension assembly as described in claim 1, further comprising:
a plurality of upper rear ball joints affixed to said upper control arm; and

a plurality of lower rear ball joints affixed to said lower control arm.

[c9] 9. An automotive suspension assembly as described in claim 1, wherein said upper rear ball joints and said lower rear ball joints comprise cross-axis ball joints.

[c10] 10. An automotive suspension assembly as described in claim 1, wherein said slotted guide is orientated to provide uni-directional displacement between said upper control arm and said knuckle.

[c11] 11. An automotive suspension assembly as described in claim1, wherein said upper control arm shaft comprises a bolt fastener.

[c12] 12. An automotive suspension assembly comprising:
a knuckle having a camber;
an upper control arm rotatably affixed to said knuckle by way of a lower mount joint rotatably engaging an upper rotational joint; and
a lower control arm rotatably affixed to said knuckle by way of a lower mount joint rotatably engaging a lower rotational joint, said lower mount joint including an integral lower control arm shaft positioned within a slotted guide, said camber adjustable by adjusting the position of said lower control arm shaft within said slotted guide.

[c13] 13. An automotive suspension assembly as described in claim 12, wherein said lower control arm shaft is positioned along the rotational axis of said lower rotational joint.

[c14] 14. An automotive suspension assembly as described in claim 12, wherein said lower mount joint is formed as a portion of said lower control arm and said lower rotational joint is formed as a portion of said knuckle.

[c15] 15. An automotive suspension assembly as described in claim 12, wherein said lower mount joint is formed as a portion of said knuckle and said lower rotational joint is formed as a portion of said lower control arm.

[c16] 16. An automotive suspension assembly as described in claim 12, wherein said lower rotational joint comprises a cross-axis ball joint.

[c17] 17. An automotive suspension assembly as described in claim 12, wherein said lower rotational joint comprises a bushing joint.

[c18] 18. An automotive suspension assembly as described in claim 12, further comprising:
a plurality of upper rear cross-axis ball joints affixed to said upper control arm; and
a plurality of lower rear cross-axis ball joints affixed to said lower control arm..

[c19] 19. An automotive suspension assembly as described in claim 12, wherein said slotted guide is orientated to provide uni-directional displacement between said lower control arm and said knuckle.

[c20] 20. An automotive suspension assembly as described in claim 12, wherein said upper control arm shaft comprises a bolt fastener.